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ALTERNATIVE METHODS FOR PAYING PHYSICIANS

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ALTERNATIVE METHODS FOR PAYING PHYSICIANS: FROM OFFICE VISITS TO DRGs TO HMOs

The rapid escalation in medical care expenditures in the last 15 years no longer needs documentation. Price indices of health care are up 236% over 1967 with hospitals leading the way (363% for the average semi-private room).[1] Physician expenditures also pose a clear and immediate problem. In 1970, the federal government through Medicare and Medicaid was spending $2.2 billion on physicians'services alone. By 1980, this number had more than quadrupled to $9.2 billion.[2]

Table 1 presents unpublished data on Medicare reimbursements and utilization per beneficiary for physician services, showing the impact of service proliferation on outlays. Medicare physician reimbursements grew 13.5 percent annually over the period, with nearly 10 percentage points coming from greater service intensity per beneficiary. Thus, even if payments per service were completely frozen, the budget crisis would still remain, fueled by a growing intensity of care.

Why have services grown so rapidly? The answer is generally conceded to be fee-for-service billing.[3] Most insurors now pay physicians separately for each service performed; the more services, the greater the revenues. This leads to a la carte billing where everything is itemized. As one family practitioner recalled, "Medicaid refused to pay my all-inclusive fee for a Colles' fracture, and when I itemized it, it actually came out higher."[4]

How itemized billing can "accidentally" raise costs is the topic of the first part of our paper, which deals with procedure terminologies and how physicians are paid. What to do about it is laid out in the second part. One answer lies in packaging services to get away from procedure-by-procedure billing. Everyone would like a new approach (a) that is less inflationary than the current one, (b) does not lead to underserving the elderly or the poor, (c) that is fair to generalists and specialists alike so that they will participate in meaningful numbers, (d) that improves physician-patient relationships, and (e) does not stifle technical or organizational innovation. No system is perfect, nor can any one achieve all of these goals simultaneously for each and every patient and physician. But some packaging approaches are better than others, as we shall show.

The Evolution of Medical Procedure Terminology

Today the vast majority of physicians are reimbursed on a fee-for-service basis, with roots going back as far as the Code of Hammurabi in Babylonian times. Fee-for-service reimbursement systems vary in methodology, but most of these variations can be fitted into the two general classes: (1) fixed fee schedules; or (2) Usual, Customary and Reasonable (UCR) payment. In either method, specification of the services is defined by a medical procedure terminology and coding system. The terminology is intended to help the physician describe the service(s) provided, and the numerical code assigned to each term expedites reporting and improves accuracy. The code also provides the third party with a simplified means of data entry and computer handling of the information.

Development of the medical procedural terminology and coding systems in current use began in the early 1940's with the provision of coverage for in-hospital surgery by Blue Shield Plans. By 1966, the AMA had published the first edition of its own Current Procedural Terminology (CPT-1), containing 2,084 separate procedures. Medicare's specification of the UCR payment system, and its coverage of physician services both in and out of the hospital, had a dramatic effect on procedural terminology and coding systems. The AMA's second edition (CPT-2) in 1969 contained 3,449 terms, a 65% increase. By 1977, CPT-4 contained 6,132 terms, a three-fold increase since its first publication eleven years earlier.

One of the major influences leading to two- and three-fold increases in the size of procedural terminology and coding systems has been the rapid increases in medical knowledge, technological developments, and the like. As new procedures have been developed (e.g., heart-bypass surgeries, fiber optics), terminology systems required updating to provide the means for reporting and reimbursing these procedures. Most of the other changes have come about for less well understood reasons, however, including: (1) the inclusion of out-of-hospital physician services,following Medicare's lead; (2) the widespread adoption of the UCR method for determining reimbursement levels; and (3) the increasingly direct control of state and local medical associations over terminology systems.

Fee-for-service billing clearly has many advantages; otherwise it would not have had such a long and prosperous history. First, and most important, "you get exactly what you pay for." Patients needing more tests or more return visits pay more; those with simpler problems pay less. This is highly

equitable. Second, it gives both physician and patient great freedom of choice. Neither is "locked-in" to each other. Physicians can charge whatever they feel their services are worth while patients can evaluate itemized prices and decide whether they need, say, the extra revisit. Third, patients willing to pay more can gain access to specialists more readily, as in other markets. And fourth, when a new technology is used, a charge is set and a payment made, which provides a financial incentive to innovation.

But if procedure-specific billing is so great, why does everyone want to get rid of it? The problem has to do with insurance: none of us are matching actual fees charged against marginal preferences anymore, leading to overconsumption, waste, and inflation. A more complex answer takes into account the way in which procedures are defined and paid for under various insurance schemes.

How Procedure Terminologies Fuel Inflation

Procedural detail has contributed to expenditure inflation in two ways. First, with a greater number of procedures to choose from, the physician has more latitude in billing under a more complex, costly procedure code for the same service. If only one category existed for office visits, physicians could only bill under its code number, receiving a fixed reimbursement per visit. When the carrier allows for two or more codes, however, supposedly varying in complexity (e.g., brief vs. complex office visits) as well as payment, the physician naturally has the incentive to "upgrade" his visits in nominal (name-only) terms to the more lucrative code. More numerous codes for any activity make it easier to rename a "brief" visit, "intermediate," and an "intermediate" visit, "extended." Upgrading services for billing purposes without really altering the content of the service we shall call nominal procinflation (i.e., procedure inflation).

The second way in which procedure metastases fuel inflation is through the unbundling that goes hand-in-hand with the extra procedures. Lab tests are a good example. Newer medical terminologies encourage (if not require) physicians to list lab services separately from the physician component of the visit. Medicare, Blue Shield, and other insurors using UCR reimbursement methods screen and pay for visits and lab tests as if they were medically unrelated. Prior to the unpackaging of tests, the visit payment covered both

components: that is, the physician (and auxiliary staff) time with the patient plus the total charge for lab tests. The principal effect of billing for tests separately is that no automatic constraint is placed on the frequency, or rate, of testing and special studies (e.g., ECGs). Medicare and other insurors focus entirely on price, not quantity, encouraging physicians to "make up" for fee reductions through unbundling with intensification.

Overwhelmed with millions of claims per year, it is all carriers can do to keep up with the exigencies of establishing screens on new variants of medical practice and limiting charges on old ones. Procinflation and unbundling with intensification go essentially unchecked, frustrating all efforts at expenditure control through fee regulation alone.

Faced with unacceptable growth in public outlays on physicians' services, both federal and state governments have initiated many reforms, a few specifically directed at the problems spawned by terminology multiplication. Medicare, for example, is now participating in several HMO demonstrations that pay providers a capitated, single rate covering physician, ancillary, and institutional services. And California recently enacted legislation that authorizes the Medi-Cal program "to contract with noninstitutional providers to deliver services to Medi-Cal [Medicaid] recipients in a manner which promotes case management,...and to enter into capitated methods of payment to correct or prevent irregular or abusive billing practices."[5]

We have been exploring ways of dealing with the problem more directly through alternative reimbursement "packages." If CPT-4 can be modified, either prospectively by changing the terminology or retrospectively by combining separate bills, millions of dollars could be saved every year.

Five Package Types

Current Procedure Terminologies like CPT-4 can be "packaged" in a near infinity of ways, some of which make little sense from a medical or an administrative perspective. We have drawn upon expertise in the fields of medicine, economics, medical sociology, and Medicare-Medicaid administration to help target the investigation. This effort has produced a five part categorization of "archetypal packages." These we have arrayed in hierarchical order, as shown in Figure 1, according to their scope of included services. At the base of the pyramid are the individual procedures, the office visits, ancillaries, the inpatient surgeries, etc. As one moves up the pyramid, more and more services are packaged and paid for under a single fee.

Collapsed packages form the lowest level, and are not true packages because they do not bundle together clearly distinct medical procedures like the others do. Instead, they are a collapsed version of current coding schemes that eliminates fine gradations within procedure (e.g., ankle vs. foot x-rays). This is shown in Figure 1 by the merging of "brief" and "intermediate" office visits into one category, by limiting the number of different ancillary hip x-rays, and so on. One or more of the procedure codes could be suppressed, forcing services to either be billed or paid according to a single code.

Office visit packages form a second-tiered cumulation of office visits and associated ancillary tests and special studies (e.g., ECGs). Unlike the current or the collapsed system, where payment is made on visits and ancillaries separately, office visit packages would pay a single amount on the combined set of services.

Special medical or surgical procedure packages can be thought of as the inpatient analog to office visit packages, and are typified by surgical procedures or complex, multi-physician diagnostic tests (e.g., CAT scans). They may be narrowly defined to include just specialist services, like assistant surgeons and anesthesiologists, or more broadly to include all inpatient and hospital routine stay costs as well. Clearly, the incentives are quite different where institutional costs are included, which is why we show the more inclusive special procedure package as another level. Packages of this type also can be linked to DRG payment as we show below.

Condition packages constitute the first real break with the procedure as a unit of payment, paying instead on a medical condition basis over an extended time period. In many instances, condition, office visit, and special procedure packages look similar in scope of services, but they are fundamentally different in covering multiple office visits, consultations, and hospitalizations over time, independent of actual services rendered. (In Figure 1, this is denoted by vertical dots.) Physicians are paid a fixed amount to treat a patient's condition (including preventive care as one option), which may require many visits or none, surgery or no surgery, many specialist consults or none at all. Condition packages can be ambulatory or inpatient, depending on locus of care and whether the problem is acute or chronic. A total condition package would cover all care regardless of locus.

Beneficiary packages are the broadest of all, covering any and all care a patient might require over a specified period, no matter the condition. They can be thought of as "packages of condition packages," with physicians paid per capitated eligible and not on any procedures performed or conditions

treated. Medicare HMO demonstrations, where HMOs agree (or arrange) to deliver all care needed for an enrolled population, are similar in concept, but the so-called case management arrangement is an even better example in that private physicians, rather than institutions, take direct medical and financial responsibility for all services.[6]

Advantages and Disadvantages to Packaging

Table 2 lists the major advantages and disadvantages to the five approaches to packaging physician services. By simply reducing the absolute number of procedure codes, collapsed packaging can greatly reduce the number of codes physicians and third party payers must keep track of. This should constrain procinflation as well, as distinctions between codes become clearer and more amenable to verification. Further, in retaining procedure billing, collapsed packages would permit physicians to tailor bills to the medical needs of individual patients, thereby discouraging resource skimping. It would also be equitable to specialists who could continue to charge more for complicated procedures. Nevertheless, collapsed packages fail to really address the biggest problem: unbundling with intensification. They would also discourage physicians from accepting the Medicare rate as payment-in-full (i.e., taking assignment) on the higher cost procedures that may have been collapsed into a broader procedure code.

Combining ancillary lab tests, x-rays, and ECGs with office visits to produce a single payment would not only reduce the paperwork of listing each test separately but should discourage unbundling. It should also encourage physicians to shop around for the best price on ancillaries, an incentive totally absent from the current system. An immediate concern with going to a visit-cum-ancillary package would be the revisit rate. Physicians would have a clear incentive to increase patient contacts for any illness, spreading a fixed amount of testing over more visits to increase total reimbursement. Changes in ancillary billing would also have to be made, preventing labs and other ancillary providers from billing separately for tests recommended as part of ambulatory physician care.

Another implementation problem would involve developing meaningful visit categories for packaging ancillaries. The current Medicare CPT-4 terminology has 11 visit types, stratified by complexity and new vs. established patient. Significant within-visit variation in ancillary testing due to severity would lead to inequitable payments to physicians and, possibly, some skimping on ancillaries as a whole. How best to classify patients for ambulatory

reimbursement would be one of the most difficult tasks in setting up packages -- as shown in a moment.

Special procedure packages would (usually) focus on complicated diagnostic and therapeutic procedures done in the hospital that involve two or more physicians (e.g., CT scans, coronary bypass surgery, cardiac radioisotope scans) . Surgeons' inpatient services are already packaged, and Medicare does not pay any additional bills for his/her pre- and post-operative visits in the hospital. This package would go a step further by requiring physicians recommending the procedure to submit a single bill that included other physician services as well, e.g., the anesthesiologist, the surgical assistant, the radiologist, or other consulting specialists.

Fewer unnecessary surgical assists and consultations are a logical advantage to such a package, as well as providing some encouragement to fee bargaining. If other hospital services like operating room costs, lab tests, and routine nursing care where also included, the package would have profound implications for hospital costs generally. Nor is the idea as far-fetched as it sounds. The DRG prospective payment system, newly enacted by Congress, explicitly mandates HCFA "to begin to collect data to calculate physicians' charges for each DRG." While its intent is to tie physician charges to DRGs in some fashion, it is not yet clear how this would be done. Given the significant variation in treatment patterns within many DRGs, a procedure-based package may be more equitable and less costly on average.

Hospital-based physicians will strongly resist such packages, as they could no longer bill Medicare independently. Even the billing physician will be lukewarm to this package at best because of the added hassle of "negotiating" with assistants and specialists. This could lead to skimping on technical support services and lower assignment rates for these costly procedures.

Condition packages are like office visit packages that use diagnostic casemix stratifiers, but fundamentally differ in covering services over a specified period of time. They also share things in common with special procedure packages, except that payment does not revolve around a specific procedure. One example of a condition package would be the ambulatory physician care required for six months in managing a hypertension patient, reimbursed monthly on a pro rata basis.

Like office visit packages, condition packages would discourage unbundling, but they would go another step in discouraging revisits as well. They would greatly streamline billing by eliminating procedure reporting. Procinflation would be abolished, as the unit of payment and mode

of treatment would be separated. Furthermore, if the package were extended to cover other specialist services as well, both in and out of the hospital, the primary care physician would necessarily fulfill a gatekeeper's role.

The Achilles' Heel of all condition packages is the manner in which the "case" is defined. All the gains to this package depend on its integrity. If the range of services cannot be well specified in advance, or if the final set excludes care received in other locations (e.g., hospitals), then physicians have strong incentives to (a) take the condition's periodic payment as a base and bill for as many services as possible "out-of-condition," or (b) to case-inflate by "upgrading" the severity of the patient's illness to receive higher reimbursement. Casinflation, procinflation, DRG creep, and cream-skimming are all manifestations of this definitional ambiguity, plaguing any system that attempts to categorize patients or services for the purpose of reimbursement.

Finally, we come to the fully capitated beneficiary package, a package of condition packages, if you will. Here, the primary care physician is obligated to provide all of the patient's medical needs, directly or through referral, regardless of medical problem. For this, the physician is paid a pro rata amount for every beneficiary under his/her care.[7]

Fully capitated packages enjoy all of the advantages associated with condition packages, e.g., less unbundling, fewer revisits, plus it eliminates casinflation and the problems with "uncovered" services. They also encourage more preventive care and better continuity as well.

Beneficiary packages also evoke the same concerns as condition packages; namely, resource skimping, cream-skimming, and lack of physician access. Physicians also argue that they prefer being paid when they do something, not when they don't. Another major problem with this approach has to do with specialists. General practitioners are loath to decide when a specialist's services are required, particularly if patients need their authorization first. Failure to adequately monitor specialists has been the downfall of at least one of these packages (SAFECO in Seattle).[8] Primary physicians are also reticent to take on the added risk of treating all a patients' problems under a fixed rate. Unless ways are devised to pool the risk across physicians and payers, the fully capitated package, without any severity adjustment, will be attractive only to the more entrepreneurial practitioners.

DRG Inpatient Physician Packages

To illustrate the potential gains as well as the problems associated with packaging, consider Table 3 which gives average physician Medicare charges for four DRGs related to cholecystectomies. The data reflect 1981 bills from South Carolina physicians. Frequency of occurrence appears in parentheses. For example, a surgical assistant bills for a complex operation with complications 34% of the time versus only 23% when there are no complications. The figure at the bottom of each column is the expected bill for all physician services associated with the admission, weighted by the frequency of occurrence.

What is most striking about the table is the number of different physicians involved: anesthesiologists (always); assistant surgeons (20-34% of admissions); second surgeries (11-33%); routine bed visits in addition to the surgeons' (26-58%); consultations (13-34%); etc. The net effect is to add $600-$700 to the surgeon's bill, a bill which already includes pre- and post-operative inpatient care.

Given how expensive these complementary services are, large savings would accrue to minor reductions in frequency. Why an assistant surgeon, additional routine bed visits, and consultations are needed on a simple, uncomplicated operation is unknown. Eliminating assistants, consults, routine visits, and other specialists' services for DRG 198 alone could save $75 on the average inpatient bill. And this is just the physicians' portion. If days were shortened, further savings would be possible.

These data also point to a potential problem with DRG-based physician packages. A substantial minority of all cholecystectomy patients undergo other operations on the same admission. Sometimes these are routine, complementary diagnostic procedures like endoscopies, but in other cases they are major, unrelated operations like hernia repairs. Physicians treating these patients (28% across all four DRGs) may find themselves underpaid by the "cholecystectomy" surgeon and refuse to participate in the packaging arrangement. Alternatively, they may discharge the patient and then readmit him/her for the second surgery, thereby qualifying both physician and hospital for a second DPG payment. The implications for Medicare expenditures are obvious.

Getting Physicians to Accept Packages

The more aggregated packages offer potential benefits to society, but, at the same time, risks to physicians increase. Methods must be devised and implemented to encourage physicians to accept the packages.

Physician participation under Medicare now is highly flexible. The physician can accept the Medicare-allowable fee as payment-in-full in some cases (in Medicare jargon take the claim "on assignment"), but refuse to do so in others. The physician may also decide to accept some of a patient's bills but refuse assignment on others. When the physician refuses to accept assignment, the patient can collect the Medicare allowable fee less his cost-sharing obligation from Medicare. The amount the patient receives from the government when the doctor refuses to accept assignment is often far less than the physician's fee. Although the physician runs some risk of not being paid when he rejects assignment, this is not very likely since the patient does receive some reimbursement from Medicare.

Some general principles apply whether the aim is to encourage the physician to accept reimbursement for an entire package or for a single procedure as payment-in-full. There is a substantial amount of empirical evidence indicating that physicians will accept assignment if this is in their financial interest.[9] The government can raise the assignment rate by offering specific monetary inducements, or "carrots," or it can take away some benefits that physicians who do not take assignment currently receive, the "stick" approach. Various carrots and sticks are listed in Table 4.

Offering carrots would undoubtedly be attractive to physicians and to beneficiaries as patients. But taxpayers would not like them since these incentives would undoubtedly add to program costs. Some of the carrots are far more expensive than others, but the costly ones also are more powerful inducements on average.

The sticks receive high marks for the cost savings they would generate. Physicians would undoubtedly oppose them, and some patients would be placed at a disadvantage if their physicians switched from sometimes accepting assignment to refusing it in all cases. These patients would be worse off in the short run, but over the longer term, they could switch to physicians willing to take assignment. This would certainly force some doctors who refused assignment to reevaluate their policy. In a practical sense, major sticks will only work if there is the political will to accept the pain of short-term adjustments for the long term gain of cost control.

TABLE 1

GROWTH IN MEDICARE PHYSICIAN REIMBURSEMENTS PER BENEFICIARY, 1974-1978

	1974	1976	1978	Annual % Growth
Reimbursements/Beneficiary	$121.93	$161.97	$209.65	13.5%
Services/Beneficiary	2.45	3.05	3.59	9.9
Reimbursements/Service	$50.73	$53.71	$59.23	3.9

Source: Health Care Financing Administration, unpublished tabulations.

Note: Reimbursements and services are on a beneficiary basis.

TABLE 2

ADVANTAGES AND DISADVANTAGES TO PACKAGING PHYSICIAN PAYMENT

ADVANTAGES	DISADVANTAGES
COLLAPSED PACKAGES	
Reduces paperwork	Fails to control unbundling
Less procinflation	Less assignment on high cost procedures
Retains illness-specific billing	
Highly feasible to construct	
Abuse surveillance maintained	
Minimum resource skimping	
Equitable to specialists	
OFFICE VISIT PACKAGES	
Less ancillary unbundling	More revisits
Encourages price bargaining with ancillary providers	Resistance by ancillary providers
Reduces paperwork	Skimping on necessary testing
	Less assignment for ambulatory care
	Difficulty in classifying patients by severity
SPECIAL PROCEDURE PACKAGES	
Fewer unnecessary surgical assists and consultations	Resistance by hospital-based physicians
Encourages fee bargaining	Requires new procedure screens
Reduced multiple billing	Skimping on technical support
Less hospital use	Less assignment of surgery, special tests
CONDITION PACKAGES	
Less unbundling and revisits	Inequities for severe cases
Eliminates procinflation	Encourages "out-of-condition" billing
Reduces Paperwork	Skimping on visits, testing
Eliminates procedure-specific profiles	Cream-skimming within condition
	Resistance by specialists
Makes primary physician a gate-keeper	Casinflation
Encourages integrated patient care	

TABLE 2 CONT.

ADVANTAGES AND DISADVANTAGES TO PACKAGING PHYSICIAN PAYMENT

ADVANTAGES	DISADVANTAGES
BENEFICIARY PACKAGES	
Less unnecessary inpatient use and surgery	Less physician input and access
Less unbundling and revisits	Skimping on resources
More prventive care	Inequities for severe cases
Eliminates procinflation, casinflation	Resistance by spcialists
Primary physician a gatekeeper	Complicated implementation
Encourages integrated care	Cream-skimming
Reduces paperwork	

TABLE 3

CHOLECYSTECTOMY DRG PACKAGES[a]

Physician Component	Complex Cholecystectomy With C.C. DRG #195	Complex Cholecystectomy No C.C. DRG #196	Simple Cholecystectomy With C.C. DRG #197	Simple Cholecystectomy No C.C.[b] DRG #198
Surgeon	$698.89 (1.0)	$680.84 (1.0)	$572.66 (1.0)	$582.03 (1.0)
Anesthesiologist	179.61 (1.0)	181.86 (1.0)	140.58 (1.0)	150.03 (1.0)
Assistant Surgeon	141.56 (0.34)	140.94 (0.23)	116.72 (0.30)	116.29 (0.24)
Other Surgery[c]	394.66 (0.33)	201.41 (0.11)	441.13 (0.31)	412.18 (0.18)
Routine Hosp. Visits[d]	268.46 (0.58)	233.20 (0.34)	199.90 (0.53)	139.86 (0.26)
ICU Visits	106.59 (0.12)	96.59 (0.10)	113.64 (0.06)	99.86 (0.03)
Consults	65.63 (0.39)	45.10 (0.15)	58.07 (0.34)	62.56 (0.13)
Pathologist	49.69 (1.0)	68.72 (1.0)	41.45 (1.0)	50.75 (1.0)
Radiologist	133.40 (0.80)	112.60 (0.62)	88.86 (0.77)	82.59 (0.57)
Cardiologist (ECGs)	13.82 (0.75)	10.36 (0.53)	11.87 (0.78)	9.21 (0.65)
Other Specialists	61.82 (0.06)	19.83 (0.04)	68.64 (0.09)	87.61 (0.03)
Total Package Price =	$1,420.47	$1,158.03	$1,141.33	$987.93

[a]Relative frequency of each physician service provided in parentheses.

[b]C.C. = Substantial complicating conditions.

[c]Includes surgeon's, anesthesiologists's, and assistant's fees.

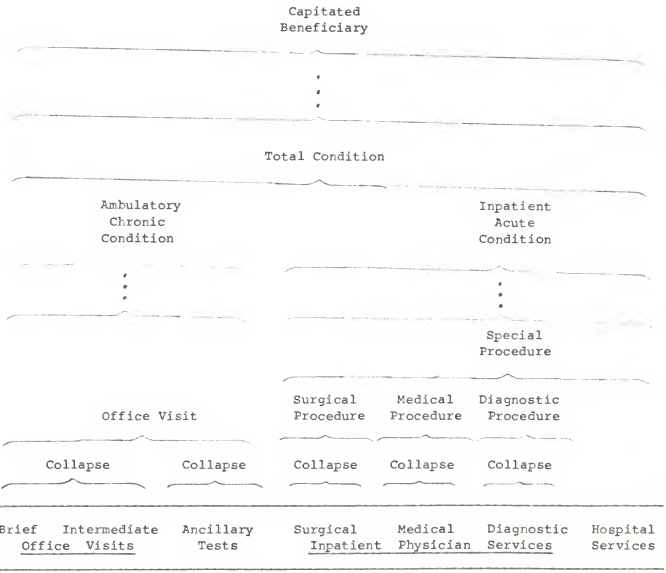
[d]Includes the admitting physicians' visits.

TABLE 4

METHODS TO INCREASE PHYSICIAN WILLINGNESS TO ACCEPT ASSIGNMENT OF MEDICARE BENEFITS

Carrots	Sticks
1. Raise the level of reimbursement irrespective of assignment status.	1. Make Medicare reimbursement only for services provided by doctors who accept assignment (Medicaid's approach).
2. Raise reimbursement for assigned claims by a fixed percentage, maintaining current reimbursement policy for unassigned claims.	2. Reduce the allowable fee by a fixed percentage when the doctor does not accept assignment.
3. Provide periodic interim payments to physicians who accept assignment (or other mechanisms to speed up payment).	3. Abandon claim-by-claim assignment. In its place, establish the principle of physician participation agreements. (Many Blue Shield Plans use this approach.)
4. Waive patient cost-sharing when the physician accepts assignment.	
5. Have Medicare collect the patient's cost-sharing obligation for the doctor when he accepts assignment.	

Figure 1: HIERARCHY OF PACKAGES



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